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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,840	08/04/2003	Akira Yamamoto		5056

7590 10/06/2005	EXAMINER
MATTINGLY, STRANGER & MALUR, P.C. 1800 DIAGONAL ROAD SUITE 370 ALEXANDRIA, VA 22314	ROBERTSON, DAVID L

ART UNIT	PAPER NUMBER
2186	

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/632,840	YAMAMOTO ET AL.
	Examiner	Art Unit	
	David L. Robertson	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *27-36* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *27-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8/21/2003*.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

This Office action is in response to the filing of a Continuation Application under 37

C.F.R. 1.53(b) on August 4, 2003.

The IDS, filed August 21, 2003, is noted. The IDS suggests that the documents cited

could be found in the parent application, Ser. No. 09/544,853. However, despite a thorough

search of the parent application, many of the cited references were not therein. Therefore, the

references that have been crossed out on the PTO-1449 sheets have not been considered because

they were not located in the parent application. Additionally, as noted in the previous

application, of the numerous documents cited, most of them do not appear to be relevant to the

instant invention.

The nonstatutory double patenting rejection is based on a judicially created doctrine
grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or
improper timewise extension of the "right to exclude" granted by a patent and to prevent possible
harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed.
Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686
F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA
1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to
overcome an actual or provisional rejection based on a nonstatutory double patenting ground
provided the conflicting application or patent is shown to be commonly owned with this
application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal
disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37
CFR 3.73(b).

Claims 27-28 and 31-36 are rejected under the judicially created doctrine of obviousness-

type double patenting as being unpatentable over at least claims 8, 9, 14, 15, 17-19 and 22 of

U.S. Patent No. 5,694,576. Although the conflicting claims are not identical, they are not

patentably distinct from each other because once a determination is made as to the validity of the

data received in a write request in the claims noted above, it obviously follows that in the event

the data is invalid for the designated field that the processor be notified of the error.

Claims 27-28 and 31-36 are rejected under the judicially created doctrine of obviousness-

type double patenting as being unpatentable over at least claims 1, 4, 8, 13, 15, 18 and 20 of U.S.

Patent No. 5,497,472. Although the conflicting claims are not identical, they are not patentably

distinct from each other because those claims include notifying the processor of an error in the

event one or more of the data fields are invalid for the designated target.

Claims 27-28 and 31-36 are rejected under the judicially created doctrine of obviousness-

type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 6,085,286.

Although the conflicting claims are not identical, they are not patentably distinct from each other

because the elimination of a channel interface is an obvious expedient.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

Claims 27-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

Claim 27, the language of lines 9-10, "for storing data in some of said plurality of

records" is unclear. It is not clear whether the cache memory causes data to be stored in the disk

record or whether data from the disk record is copied into the cache. In line 11, "said variable

length data field" lacks antecedent basis. The language in lines 11-12, "except for data stored in said control field" is idiomatically incorrect and unclear. In line 13, "said one record" lacks antecedent basis. In line 14, "said write data" lacks antecedent basis. In lines 15-16, "said controller notifies an error to said data processing unit" is grammatically and idiomatically incorrect.

Claim 28, line 2, the meaning of "valid for said data field" is not readily apparent. In lines 4-5, the antecedent basis of "said one record of storage unit" is uncertain. Additionally, the operation of lines 3-5, i.e., "said controller stores...without accessing said one record of storage unit" and the operation of lines 5-6, i.e., "transferring said write data from said cache memory to said disk storage unit" appear to be contradictory (e.g., transferring data "to said storage unit" "without accessing said...storage unit").

Claim 29, "of respective said plurality of records" is grammatically and idiomatically incorrect.

Claim 31, "said variable length data field" lacks antecedent basis. The language of lines 9-10, i.e., "for storing data in some of said plurality..." is unclear for the reasons noted above with respect to claim 27. In lines 14-15, "said variable length data field" lacks antecedent basis. In line 15, "except for data..." is unclear. In lines 16, 19, etc., "said one record" is unclear. In line 18, "said write data" lacks antecedent basis. In line 23, the meaning of "invalid" is unclear.

Claim 32 has the same deficiencies as pointed out for claim 28, above.

Claim 34 has the same deficiencies as pointed out for claim 29, above.

Claim 35, the language "for storing data in some of said plurality..." is unclear for the reasons noted above with respect to claim 27. In line 12, "said one record" lacks antecedent

basis. In line 17, the meaning of "invalid" is unclear. In lines 18-19, "said controller notifies an

error to said data processing unit" is deficient for the reasons noted above with respect to claim

27.

Claim 36, the language of lines 8-9, i.e., "for storing data in some of said plurality..." is

unclear for the reasons noted above with respect to claim 27. In lines 11-12, "said variable

length data field" lacks antecedent basis. In lines 12-13, "one record" is unclear. In lines 12-13,

the meaning of "without updating...by write data send..." is inscrutable. Additionally, in line

13, "write data send" appears to be incorrect. In line 16, the meaning of "invalid" is unclear. In

lines 17-18, "said controller notifies an error to said data processing unit" is deficient for the

reasons noted above with respect to claim 27.

Claims 27-36 would be allowable if rewritten or amended to overcome the rejection(s)

under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action. As applicants pointed out in

the parent application, the partial write operation claimed writes data without changing the

format of the disk, therefore, the host sends only the user date, not the format information.

Because the controller is aware of the format information, data can be written to the cache

without accessing the disk for format information, even if the record is not stored in the cache.

Any inquiry concerning this communication or earlier communications from the examiner
should be directed to David L. Robertson whose telephone number is 571-272-4186. The
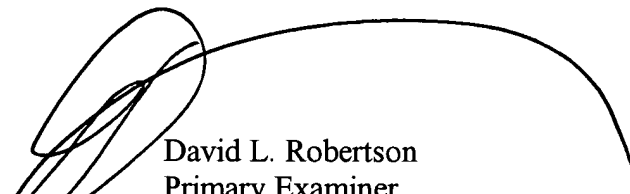examiner can normally be reached on weekdays from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt
Kim, can be reached on 571-272-4182. The general phone number for the organization where
this application or proceeding is assigned is 571-272-2100.

The fax number for Official communications is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Communications that are neither sensitive nor privileged may also be posted on e-mail at David.Robertson@USPTO.gov.

David L. Robertson
Primary Examiner
Art Unit 2186